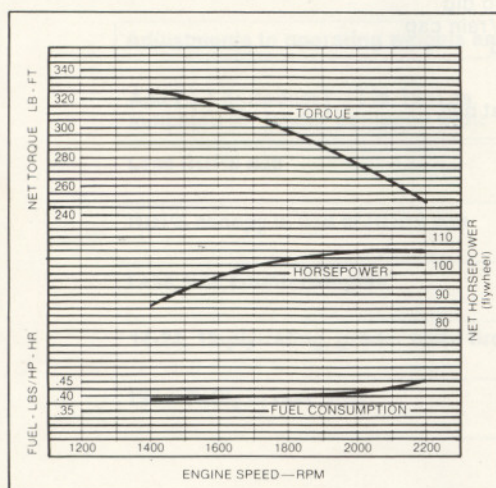




JD544-B LOADER



ENGINE PERFORMANCE



FEATURES

- 105 SAE net hp (106.5 PS)
- 4-wheel drive
- 1½-, 1¾-, 2-, or 3-cu.-yd. buckets or 1¾-cu.-yd. multi-purpose bucket
- Twin-turbine torque converter with Power Shift transmission. 4 speeds forward, 2 reverse
- Power steering. Articulated frame
- 4-wheel power wet-disk brakes and parking brake
- Inboard planetary final drives
- Single-lever loader control w/automatic return to dig
- Brake-actuated transmission disconnect
- No-Spin front axle differential
- Vandal protection
- Roll-over protective structure (ROPS) w/cab and tinted safety glass

ADD VERSATILITY WITH:

- Backhoe
- Sideboom

JD544-B LOADER SPECIFICATIONS

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, specifications are based on a machine equipped with all standard equipment, 17.5-25, 12-ply loader-tread tires with 1180 lbs (535.2 kg) CaCl₂ solution in rear tires, ROPS cab, side counterweights, full fuel tank, and 175 lb. (79.4 kg) operator.)

Power (@ 2200 engine rpm):	SAE	
Gross	115 hp (85.8 kW*)	
Net	105 hp (78.3 kW)	106.5 PS

Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. The gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500-ft. altitude and 85°F. temperature, and DIN 70 020 conditions (non-corrected). No derating is required up to 10,000 ft. (3000 m) altitude.

*In the international system of units (SI), power is expressed in kilowatts (kW).

Engine: John Deere turbocharged diesel, vertical 6-cylinder, 4-stroke cycle.
 Bore and stroke 4.19x5 in. (106.5x127 mm)
 Piston displacement 414 cu. in. (6784 cm³)
 Compression ratio 16.2 to 1
 Maximum torque @ 1400 rpm ... 325 lb-ft (441 Nm) (44.9 kg-m)
 NACC or AMA (U.S. Tax) horsepower 42
 Lubrication Pressure system w/full-flow filter
 Cooling Pressurized w/thermostat and controlled bypass
 Fan Blower
 Aspirated air cleaner w/restriction indicator Dry
 Electrical system 12-volt w/alternator
 Batteries (2 6 volt) Reserve capacity: 420 minutes

Torque Converter

Type Twin-turbine
 Torque Multiplication 5.15 to 1

Transmission Power Shift planetary

Forward Speeds	mph	km/h
1	0-3	0-4.8
2	3-7.7	4.8-12
3	0-11.2	0-18
4	11.2-25	18-40

Reverse Speeds	mph	km/h
1	0-4	0-6.4
2	4-10	6.4-16

Note: Shift from 1st to 2nd and 3rd to 4th is automatic.

Differentials:

Front No-Spin
 Rear Standard

Drive Axles Inboard-mounted planetary gears to each wheel. Front axle fixed. Rear axle oscillates 22-degree total (13.5 inches (343 mm) vertical travel at center of tire).

Brakes:

Service .. Power actuated, 4-wheel, inboard-mounted wet disk. Foot-operated by either right or left pedal.
 Parking 10x1.5 inch (254x38 mm) expanding shoe on transmission output shaft. Adjustable, hand-operated, with warning light and buzzer.

Steering Full power steering. Frame articulated 80 degrees by two hydraulic cylinders. Turning radius of 13 feet 10 inches (4.22 m).

Hydraulic Systems:

Loader functions Independent engine-driven vane pump delivers 44.5 gpm (168.4 l/min) at 600 psi (41.4 bar) (42.2 kg/cm²) and 2200 engine rpm. 2250-psi (155.1 bar) (158.2 kg/cm²) relief valve pressure setting.
 Control Single-lever for basic lumber fork. Dual-lever for fork with clamp. Triple hydraulic valve.
 Steering and brakes Engine-driven, 8 piston, variable-displacement pump delivers 26 gpm (98.4 l/min) at 2200 engine rpm and 2000 psi (137.9 bar) (140.6 kg/cm²). Maximum system pressure is 2400 psi (165.5 bar) (168.7 kg/cm²).

Hydraulic Cylinders:	Bore	Stroke
Boom, two	5.25 in. (133 mm)	22.26 in. (565 mm)
Bucket, one	5.25 in. (133 mm)	27.22 in. (691 mm)
Cylinder rods	Ground, heat-treated, chrome-plated, polished	
Boom and bucket cylinder rods	2.25 in. (57 mm) dia.	

Tires:

14-24, 12-ply-rating, grader tread, G2
 17.5-25, 12-ply rating, loader tread, L2
 17.5-25, 16-ply-rating, loader tread, L2
 17.5-25, 12-ply-rating, rock tread, L3

Wheel Treads:

Front and rear 70 in. (1.78 m)

Capacities	U.S.	Liters
Cooling system	32 qt.	30.3
Fuel tank	40 gal.	151.4
Crankcase	18 qt.	17.0
Crankcase, including filter	20 qt.	18.9
Transmission case and filters	39 qt.	36.9
Front differential: No-Spin	24 qt.	22.7
Rear differential	25 qt.	23.7
Loader hydraulic sump	48 qt.	45.4

Additional Standard Equipment:

Adjustable cushioned seat
 Engine side shields
 Front fenders
 Gauges:
 Transmission oil temperature
 Transmission oil pressure
 Fuel
 Coolant temperature
 Engine oil pressure
 Electric hourmeter
 Voltmeter
 Loader hydraulic system indicator
 Key switch
 Pushbutton safety start
 Cigaret lighter
 Parking brake warning light and buzzer
 Transistorized voltage regulator
 Vandal protection
 Driving lights
 Work lights
 Flashing and turn signal lights
 Horn
 Fuel filter
 Automatic return to dig
 Vertical muffler w/rain cap
 Rear bottom guard
 Hand grips
 Fixed drawbar
 ROPS cab and seat belt
 Heater
 Antifreeze
 Precleaner
 Ether starting aid

JD544-B LOADER OPERATING INFORMATION

OPERATING INFORMATION	BUCKET			
	General purpose	General purpose	Loose materials	Multipurpose
Capacity, heaped, SAE	1¾ cu. yd. (1.34 m³)	2 cu. yd. (1.53 m³)	3 cu. yd. (2.29 m³)	1¾ cu. yd. (1.34 m³)
Capacity, struck, SAE	1.42 cu. yd. (1.09 m³)	1.64 cu. yd. (1.25 m³)	2.49 cu. yd. (1.9 m³)	1.34 cu. yd. (1.03 m³)
Bucket width	92 in. (2.34 m)	96 in. (2.44 m)	96 in. (2.44 m)	96 in. (2.44 m)
Bucket weight	1470 lb. (667 kg)	1545 lb. (701 kg)	1920 lb. (871 kg)	2265 lb. (1027 kg)
Breakout force, J732C SAE Standard using bucket hinge pin as pivot point	17,885 lb. (80.16 kN) (8113 kg)	17,250 lb. (77.32 kN) (7825 kg)	13,665 lb. (61.25 kN) (6198 kg)	15,475 lb. (69.36 kN) (7019 kg)
Tipping load, straight	16,395 lb. (7437 kg)	16,085 lb. (7296 kg)	15,760 lb. (7149 kg)	15,070 lb. (6836 kg)
Tipping load, 40-deg. full turn, SAE	14,200 lb. (6441 kg)	13,920 lb. (6314 kg)	13,585 lb. (6162 kg)	12,930 lb. (5865 kg)
Turning clearance, outside bucket	32 ft. 6 in. (9.9 m)	32 ft. 9 in. (9.98 m)	32 ft. 10 in. (10.02 m)	32 ft. 11 in. (10.05 m)
Loader operating weight	21,775 lb. (9877 kg)	21,850 lb. (9911 kg)	22,225 lb. (10 090 kg)	22,655 lb. (10 285 kg)

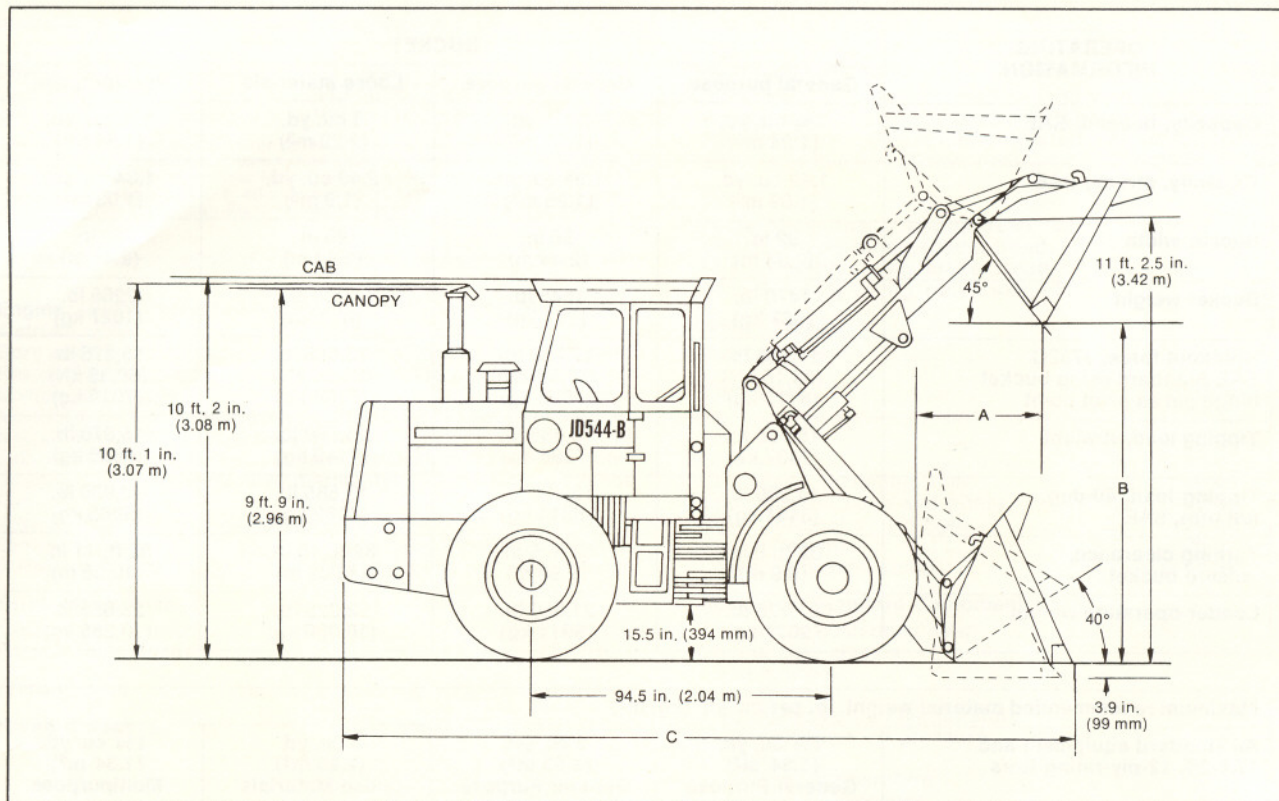
Maximum recommended material weight, lb. per cu. yd. (kg/m³)

All standard equipment and 17.5-25, 12-ply-rating tires	1¾ cu. yd. (1.34 m³) General Purpose	2 cu. yd. (1.53 m³) General Purpose	3 cu. yd. (2.29 m³) Loose Materials	1¾ cu. yd. (1.34 m³) Multipurpose
Loader less cab or canopy	2825 (1676)	2420 (1436)	1565 (928)	2495 (1480)
Loader with canopy	2955 (1753)	2530 (1501)	1635 (970)	2620 (1554)
Loader with cab	3035 (1801)	2600 (1543)	1685 (1000)	2700 (1602)
Loader with cab and fluid	3375 (2002)	2895 (1718)	1880 (1115)	3030 (1798)
Loader with cab, fluid and side weights	3570 (2118)	3060 (1815)	1990 (1181)	3220 (1910)

Adjustments to operating weights and tipping loads:

Add (+) or deduct (-) lb. (kg) as indicated for loader equipped with:	Loader Operating Weight	Tipping Load, Straight	Tipping Load, 40-deg. Full Turn, SAE
Less ROPS cab	- 950 lb. (431 kg)	- 850 lb. (386 kg)	- 785 lb. (356 kg)
ROPS canopy in lieu of ROPS cab	- 320 lb. (145 kg)	- 310 lb. (141 kg)	- 280 lb. (127 kg)
Less side counterweights	- 460 lb. (209 kg)	- 910 lb. (413 kg)	- 760 lb. (345 kg)
14-24, 12-ply-rating, grader tread tires	- 355 lb. (161 kg)	- 235 lb. (107 kg)	- 205 lb. (93 kg)
Less CaCl ₂ in rear tires	- 1180 lb. (535 kg)	- 1535 lb. (696 kg)	- 1340 lb. (608 kg)

JD544-B LOADER DIMENSIONS



Special Equipment:

Rear axle disconnect
 ROPS canopy and seat belt
 Instrument panel cover w/lock
 ROPS quiet cab
 Reverse warning alarm
 Triple loader hydraulic valve
 Bucket teeth
 Engine coolant heater
 Side counterweights
 Splash guard for fenders
 Front bottom guard
 License plate bracket
 Defroster fan
 Automatic boom height control
 SMV emblem
 Auxiliary cutting edges

BUCKET CAPACITIES	DIMENSIONS		
	A	B	C
1 3/4 cu. yd. bucket	34.7 in. (882 mm)	8 ft. 9.8 in. (2.69 m)	19 ft. 3 in. (5.85 m)
2 cu. yd. bucket	35.6 in. (904 mm)	8 ft. 8.9 in. (2.66 m)	19 ft. 4 in. (5.88 m)
3 cu. yd. bucket	42.2 in. (1070 mm)	8 ft. 2.3 in. (2.50 m)	20 ft. 2 in. (6.12 m)
1 3/4 cu. yd. multipurpose	38.0 in. (965 mm)	8 ft. 1.3 in. (2.46 m)	20 ft. 2 in. (6.15 m)